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Patrick C. St. Germain

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* PATRICK C. ST. GERMAIN

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Appeal 2009-012437  
Application 10/682,444  
Technology Center 3700

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*Before* LINDA E. HORNER, EDWARD A. BROWN, and  
CHARLES N. GREENHUT, *Administrative Patent Judges*.

BROWN, *Administrative Patent Judge*.

DECISION ON APPEAL

Patrick C. St. Germain (Appellant) appeals under 35 U.S.C. § 134(a) from a final rejection of claims 11-16 (App. Br. 1). Claims 1-10 have been canceled (App. Br. 1). We have jurisdiction over this appeal under 35 U.S.C. § 6(b). We REVERSE.

The claimed invention is directed to an apparatus for interfolding sheets of material. Claim 11 is representative of the appealed claims and reads as follows:

11. An apparatus for interfolding at least two sheets of material for forming a web of interfolded sheets of material, the apparatus comprising:
  - a) at least two dispensers preforming sheets of material to provide at least one longitudinally extending fold line and at least one fold respectively; and
  - b) an interfolder downstream from said dispensers and comprising a pair of coacting folding rolls for receiving therebetween preformed sheet material from each of the dispensers and producing interfolded sheets of material.

## THE REJECTIONS

The following Examiner's rejections are before us for review:<sup>1</sup>

1. Claims 11 and 13-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Stemmler (US 5,088,707; issued Feb. 18, 1992) in view of Hermach.

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<sup>1</sup> The rejection of claims 11, 14, and 16 under 35 U.S.C. § 102(b) as anticipated by Hermach (US 3,942,782; issued Mar. 9, 1976) set forth in the Office Action dated Jul. 17, 2008, is withdrawn in the Examiner's Answer (Ans. 3).

2. Claim 12 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Stemmler in view of Hermach and DuFresne (US 4,824,426; issued Apr. 25, 1989).

### ISSUE

The issue presented in this appeal is whether the Examiner erred in determining that it would have been obvious to combine the teachings of Stemmler and Hermach to result in an apparatus for interfolding sheets of material for forming a web of interfolded sheets that comprises dispensers for preforming sheets of material, and an interfolder downstream of the dispensers for producing interfolded sheets from the preformed sheets, as recited in claim 11.

### ANALYSIS

*Rejection of claims 11 and 13-16 as being obvious over Stemmler in view of Hermach*

The Examiner found that Stemmler discloses an apparatus comprising at least two dispensers for providing sheets of material, and an interfolder downstream from the dispensers that includes folding rollers 12, 13 for receiving preformed sheet material from the dispensers and producing interfolded sheets of material (Ans. 3, citing Stemmler Figs. 1-3). The Examiner also found that Hermach discloses an apparatus comprising means for longitudinally folding two different sheets (i.e., former folders 26A-26C and 22A-22C.) (Ans. 3, citing Hermach Fig. 2.) The Examiner determined that it would have been obvious to one having ordinary skill in the art to

modify Stemmler's apparatus in view of Hermach to have longitudinal folds in the sheets "to improve the apparatus for associating and folding the respective sections of multi sectioned, bulky newspapers," (Ans. 3) and "to reduce the width of the sheets." (Ans. 6.)

Appellant contends that the Examiner failed to articulate adequate reasoning to explain why one skilled in the art would have combined the teachings of Stemmler and Hermach. (App. Br. 6; Reply Br. 1-2.) In this regard, Appellant contends that the Stemmler and Hermach apparatuses are designed for a different purpose and product, and both Stemmler and Hermach have different objectives from that of the present invention. (App. Br. 7; Reply Br. 2-3.) Appellant contends that Stemmler's apparatus is disclosed as being for producing numerically-correct stacks from interfolded sheets downstream from folding rolls, and one of ordinary skill in the art would have had no reason to look to Hermach to modify webs upstream of the folding rolls. (App. Br. 6-7; Reply Br. 3.) Appellant further contends that Hermach's apparatus is disclosed as being for folding bulky newspapers, and one skilled in the art would have had no reason to interfold a newspaper, thereby making the newspaper more difficult to unfold and read. (App. Br. 6-7; Reply Br. 1-2.) Appellant also contends that neither Stemmler nor Hermach describes any need to reduce the width of sheets. (Reply Br. 3.) For the reasons detailed *infra*, we agree with Appellant that the Examiner did not articulate adequate reasoning as to why one skilled in the art would have combined the teachings of Stemmler and Hermach as proposed.

Stemmler discloses an interfolder 1 wherein material W1 is drawn from feed rollers 3, 4 and divided into sheets T1; material W2 is drawn from

feed rollers 26, 27 and divided into sheets T2; a double stream of the sheets T1 and T2 is delivered to, and interfolded at, the folding rollers 12, 13; and the interfolded sheets T1 and T2 are piled to form a stack S. (Stemmler, col. 4, ll. 5-9, 12-17, 33-35 and 38-43; col. 5, ll. 28-37; Fig. 1.) The interfolded sheets can have a U-shaped or zigzag form in the stack. (Stemmler, col. 3, l. 66 - col. 4, l. 4 and col. 7, ll. 17-20; Fig. 6.) Hermach discloses a newspaper press and folder for associating and folding the sections of bulky newspapers. (Hermach, col. 1, l. 66 – col. 2, l. 3.) The folder includes former folders 26A, 26B and 26C, which form a longitudinal fold along an edge of web sections A, B and C; and former folders 22A, 22B and 22C, which form a longitudinal fold along an opposite edge of web sections D, E and F. (Hermach, col. 4, ll. 8-25; Figs. 2-4.) The folded web sections are delivered to a nip between the rollers 32, 33, and are assembled such that longitudinally folded edges of the web sections A, B and C alternate with open edges of the adjacent web sections D, E and F. (Hermach, col. 4, ll. 36-44; Figs. 2 and 5.) The assembly of the web sections is cut to produce newspapers, which are each cross-folded. (Hermach, col. 4, 64 – col. 5, l. 14.)

The Examiner has not established by a preponderance of the evidence that modifying Stemmler's interfolder in view of Hermach would "improve" Stemmler's apparatus for associating and folding sections of *multi-sectioned, bulky newspapers*. As discussed *supra*, Stemmler's interfolder shown in Figure 1 is operable to interfold a double stream of sheets in a U-shaped or zigzag form to form a stack from which partial stacks of specific size can be more easily separated. Stemmler does not disclose that the interfolder can or

does make newspapers from the interfolded sheets, much less disclose any problem associated with making newspapers that there is a need to address. As such, it is not apparent to us how Stemmler's interfolder would be improved for making newspapers by having Hermach's folders deliver longitudinally-folded sheets to the interfolder.

On the other hand, Hermach discloses that assemblies of web sections stacked on each other in an alternating arrangement provide desirable results for making multi-sectioned, bulky newspapers. Particularly, in the Hermach newspaper folder, the folders 26A-26C and 22A-22C are arranged to form longitudinal folds in the respective web sections A-C and D-F, to enable the folded web sections to be assembled in the proper sequence and registry for the downstream cutting and cross-folding operations to produce finished newspapers. According to Hermach, the assembly of the web sections having this particular alternating arrangement has uniform thickness and improved stability, enabling subsequent operations to be performed at higher speeds to produce newspapers. (Hermach, col. 2, ll. 7-14 and col. 5, ll. 34-40.) Hermach also discloses an alternative sequence of web sections that provides desirable effects. (Hermach, col. 4, ll. 54-63). However, neither Stemmler nor Hermach discloses that the desirable effects described by Hermach would also be achieved, much less that the newspaper making process would be improved as a result, by interfolding.

We also agree with Appellant that the Examiner has not articulated an adequate reason as to why one skilled in the art would desire to produce multi-sectioned, bulky newspapers with interfolded sections, such as using interfolded sheets having a U-shaped or zigzag form as taught by Hermach.

In this regard, we agree with Appellant that interfolding the sections of such newspapers would appear to make the newspapers more difficult to open and read. This difficulty would appear to be enhanced for "multi-sectioned, bulky newspapers." Hence, one skilled in the art would be discouraged from making such interfolded newspapers. We also agree with Appellant that the Examiner has not articulated an adequate reason as to why one skilled in the art would desire to longitudinally fold the sections to reduce the width of the newspapers (prior to interfolding). As such, the Examiner's articulated reasoning for modifying Stemmler appears to be based on hindsight and is insufficient to support the rejection. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) ("[R]jections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.") (citation omitted). Thus, we do not sustain the obviousness rejection of claim 11, as well as claims 13-16 which depend therefrom.

*Rejection of claim 12 as being obvious over Stemmler in view of Hermach and DuFresne*

The Examiner relies on DuFresne for disclosure of features recited in claim 12. However, the Examiner's application of DuFresne does not remedy the deficiencies of the Examiner's reliance on Stemmler and Hermach with respect to claim 11, from which claim 12 depends. Hence, we do not sustain the obviousness rejection of claim 12.



### CONCLUSION

The Examiner erred in determining that it would have been obvious to combine the teachings of Stemmler and Hermach to result in an apparatus for interfolding sheets of material for forming a web of interfolded sheets that comprises dispensers for preforming sheets of material, and an interfolder downstream of the dispensers for producing interfolded sheets from the preformed sheets, as recited in claim 11.

### DECISION

1. The rejection of claims 11 and 13-16 as being unpatentable over Stemmler in view of Hermach is REVERSED.
2. The rejection of claim 12 as being unpatentable over Stemmler in view of Hermach and DuFresne is REVERSED.

REVERSED

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